

Sexually Transmitted Diseases
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What are sexually transmitted diseases?

Sexually transmitted diseases (STDs) are a broad range of diseases that are transferred from one person to another through sexual contact. They are constituted by roughly fifty different organisms and syndromes.

Why are STDs important health issues for Detroiters?

For several STDs, rates are high in Detroit and other urban areas. The negative effects of some STDs could be reduced by immediate medical attention. Left untreated, though, STDs could have far-reaching consequences in the reproductive and general health of an individual. STDs also facilitate HIV infection; the risk of acquiring and spreading HIV may be 2-5 times greater in people with STDs.³⁶ Individuals who have been diagnosed with an STD need to notify their sex partners so that they may also be tested and, if necessary, receive treatment.

Although males and females should be aware of various STDs and act to prevent them, there is some differentiation in risk between genders. Females are more commonly asymptomatic after contracting an STD than males. When symptoms do present, they are often not specific. This often results in a delay of seeking care for women until the disease has progressed more. Diagnosis of STDs in female patients is more difficult and takes more time. The structure of the reproductive tract for females is internal. Risk of transmission is higher for females than males, largely due to anatomical differences. Most male conditions can be treated on an outpatient basis. Some STDs lead to Pelvic Inflammatory Disease (PID), which may require inpatient care.

Those who are sexually active could mitigate the impact of these diseases through education and the practice of preventive behaviors. Discussion of the data that are specific to STDs contributes to the prevention cycle by highlighting their importance for public health, stakeholders, and community members.

STDs in Detroit

There are many STDs and information specific to each of them is important. This report will cover three major diseases for the Detroit area: syphilis, gonorrhea, and chlamydia. **** As shown in Figure 12, Detroit rates for

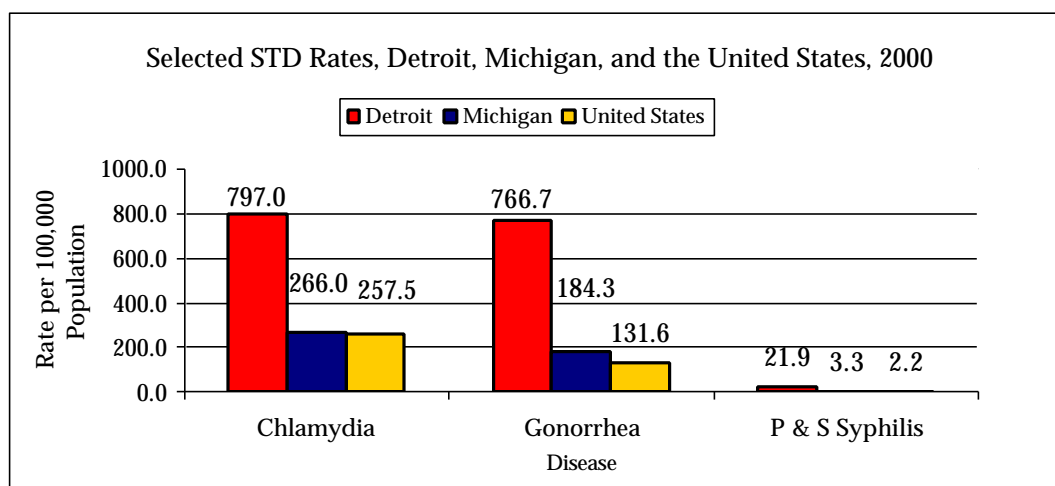


Figure 12

chlamydia, gonorrhea, and syphilis exceed those of Michigan and the United States. Rates for the state and the country are more similar.

CHLAMYDIA

Chlamydia, a bacterial infection, is one of the most common STDs in the United States. It is responsible for an estimated four million national cases each year. Chlamydia can be successfully treated with antibiotics. Due to blocked fallopian tubes and complications of pregnancy, chlamydia is the most common cause of infertility. Perinatal chlamydia infections are a common cause of infant pneumonia and the most common cause of newborn eye infections.

As shown in Figure 13, most statistics reflect disparate numbers and rates of chlamydia between men and women. This is primarily because a lack of testing or reporting for chlamydia among male sex partners of women with chlamydia. New, more sensitive testing methodology may result in more men being tested, diagnosed, and treated for chlamydia. As reporting continues to improve, future rates are expected to be greater, but may more accurately reflect the true incidence in both men and women. Eventually, with enough diagnosis and treatment, rates should decrease.²⁹

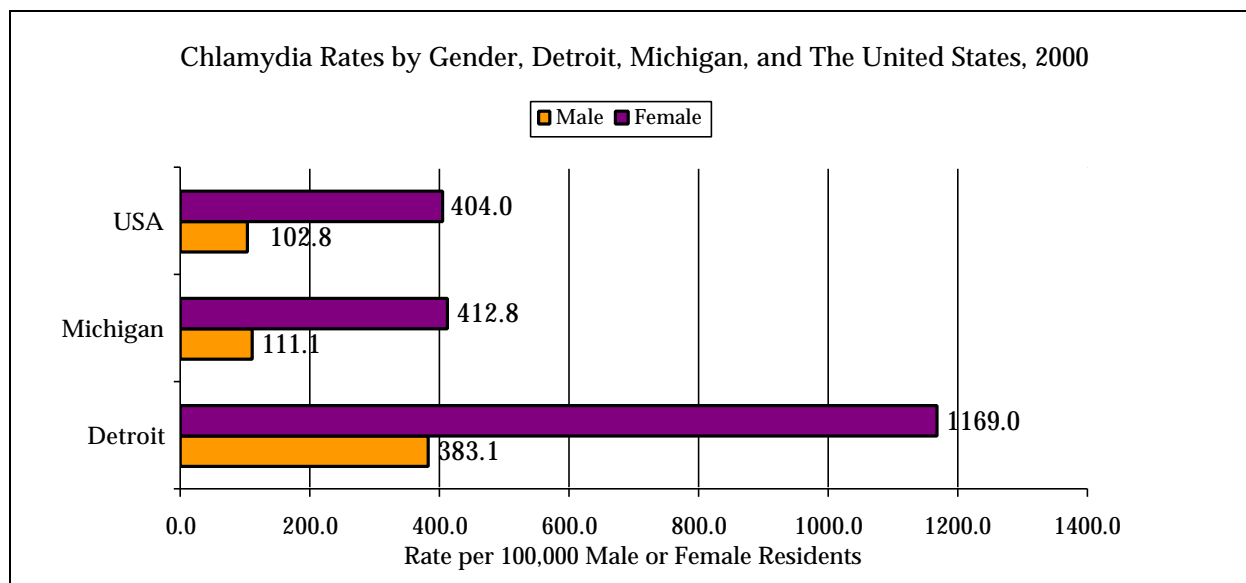


Figure 13

In the United States 702,093 cases of chlamydia were reported in 2000. The rate of reported chlamydia was 257.5 per 100,000 population. Of those cases 80% (563,206) were women. While the rate of chlamydia for men was 102.8 cases per 100,000 males in the United States, the female rate was 404.0 cases per 100,000. Females aged 15-19 suffered the highest rates of chlamydia (2,447 cases per 100,000 females aged 15-19), followed closely by women aged 20-24 (2,286 cases

**** HIV is a major disease that is transmitted sexually, but also has other risk categories, such as intravenous drug use. See the HIV and AIDS section of this Profile for further discussion.

per 100,000 females aged 20-24). Males aged 20-24 had the highest chlamydia rates among men in the United States, with a rate of 555.8 cases per 100,000 males in the age category.³⁰

HP2010 seeks to reduce the proportions of adolescents and young adults who have *Chlamydia trachomatis* infections by increasing the numbers of 15-24 year olds who attend family planning and STD clinics. As well, there is an objective to increase the proportion of sexually active females aged 25 years and under who are screened annually for genital chlamydia infections.

State statistics for chlamydia follow the same pattern as the rest of the country. In 2000, there were 26,237 reported cases of chlamydia in Michigan. The rate of reported chlamydia cases was 266.0 per 100,000 residents of all ages. By gender, rates of reported chlamydia are 413 cases per 100,000 female residents and 111 cases per 100,000 male residents. For every male case in the state, there are 4 female cases in the year 2000. Women 15-19 years old have the highest number of reported chlamydia cases in Michigan with 7,992 in 2000. This represents 38% percent of the 20,905 reported cases of chlamydia for Michigan women. There were 5,331 cases reported for men in Michigan.

Detroit accounts for 38.1% of the reported chlamydia cases in Michigan.³¹ There were 9,989 Detroit chlamydia cases reported in 2000, with a rate of 1035 cases per 100,000 residents. The rate of reported cases among Detroit males was 513 per 100,000 male residents. For female residents the rate was 1479 cases per 100,000. Females aged 15-19 suffered a rate of 8,543 cases per 100,000 residents in the age category, followed by females aged 20-24 who had a rate of 7,450 reported cases per 100,000. For reported cases among males, those aged 20-24 had the highest number of reported cases reflecting a rate of 2,647 cases per 100,000.

GONORRHEA

Infections due to *Neisseria gonorrhoeae*, like those resulting from *Chlamydia trachomatis*, are a major cause of pelvic inflammatory disease (PID) in the United States. Occurrence of PID can lead to serious outcomes such as tubal infertility, ectopic pregnancy, and chronic pelvic pain. In addition, epidemiologic and biologic studies provide strong evidence that gonorrhea-related infections facilitate the transmission of HIV infection.

As with chlamydia, reporting of gonorrhea cases is incomplete. In addition, the CDC states that reporting practices for gonorrhea have likely been biased toward reporting of infections in persons of color who attend public STD clinics. Reporting from public sources such as STD clinics may be more complete than reporting from private sources. If populations of color utilize public clinics more than Whites, differences in rates between them may be increased by this reporting bias.²⁹ As a result, the occurrence of the infection within the population is only one of the factors that affect the number of gonorrhea cases reported.

Following a 73.9% decline in the reported rate of gonorrhea from 1975 to 1997, in 1998 the gonorrhea rate increased and has remained essentially unchanged through 2000. Usually associated with simultaneous testing for chlamydia, increased screening did occur throughout the country during this period.³²

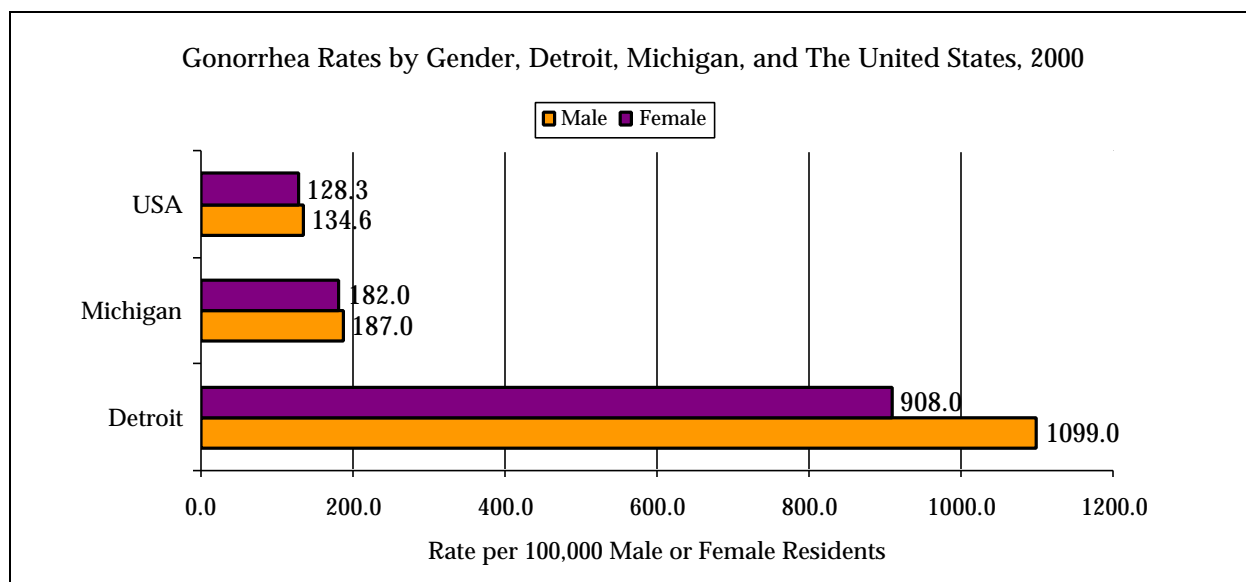


Figure 14

In 2000, 358,995 cases of gonorrhea were reported in the United States; the rate for reported gonorrhea was 131.6 cases per 100,000 population. *HP2010* objectives seek to reduce gonorrhea to 19.0 cases per 100,000 population. Among women in 2000, 15- to 19-year-olds had the highest reported rate of gonorrhea in the United States (715.6 per 100,000), while among men, 20- to 24-year-olds had the highest rate (589.7 per 100,000).

In Michigan, 18,182 cases of gonorrhea were reported in 2000 reflecting a state gonorrhea rate of 184 cases per 100,000 residents. Figure 14 indicates gonorrhea rates by gender. For males the rate of reported gonorrhea was 187 cases per 100,000. Similarly, among Michigan women, the rate was 182 reported cases of gonorrhea per 100,000 women. Gender differences in the state incidence of gonorrhea were more apparent when considered by age category. Specifically in females aged 15-19 the rate of reported cases (880 cases per 100,000 females aged 15-19) was much higher than that of males in same age category (360/100,000). In males aged 25-29 there was a higher rate (518/100,000) than females of the same ages (399/100,000). Females aged 30-44 were half as likely (100 cases per 100,000) to have reported gonorrhea cases in 2000 as men in the same age category (209 cases per 100,000).

Detroit accounts for 52.9% of the gonorrhea cases in Michigan.³³ There were 9,610 cases of gonorrhea reported for Detroit in 2000, reflecting an overall rate of 996 cases per 100,000. The rate for male residents (1099 cases per 100,000 males) of the city was slightly higher than the rate of reported cases for women (908 cases per 100,000 females).

Similar to those for the entire state, there were notable differences among age categories in the male and female rates for gonorrhea in Detroit. More cases of gonorrhea were reported for females aged 0-14 (100 cases per 100,000 female residents aged 0-14) and 15-19 (4,328 cases per 100,000 females aged 15-19) as opposed to males in those categories (12 cases per 100,000 males aged 0-14 and 1,832 cases per 100,000 males aged 15-19). In ages 25-29 and 30-44, more male

cases (3028/100,000 and 1462/100,000 respectively) were reported than female (1836/100,000 females aged 25-29; 573 per females aged 30-44).

SYPHILIS

Syphilis is a complex sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum*. Many of the signs and symptoms are indistinguishable from those of other diseases. Syphilis is passed from person to person during vaginal, anal, or oral sex through direct contact with a syphilis sore. Sores occur mainly on the external genitals, vagina, anus, or in the rectum. Sores also can occur on the lips and in the mouth. Pregnant women with the disease can pass it to the babies they are carrying. Syphilis cannot be spread by toilet seats, door knobs, swimming pools, hot tubs, bath tubs, shared clothing, or eating utensils. There are three stages of syphilis:

⌘ *Primary Stage*

The time between infection with syphilis and the start of the first symptom can range from 10-90 days (average 21 days). The primary stage of syphilis is usually marked by the appearance of a single sore (called a chancre), although there may be several. The chancre is usually firm, round, small, and painless. It appears at the spot where syphilis entered the body. The chancre lasts 3-6 weeks, and it will heal on its own. If adequate treatment is not administered, the infection progresses to the secondary stage.

⌘ *Secondary Stage*

The second stage starts when one or more areas of the skin break into a rash that usually does not itch. In addition to rashes, second-stage symptoms can include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and tiredness. A person can easily pass the disease to sex partners when primary or secondary stage signs or symptoms are present.

⌘ *Late Syphilis*

The latent (hidden) stage of syphilis begins when the secondary symptoms disappear. Without treatment, the infected person still has syphilis even though there are no signs or symptoms. It remains in the body, and it may begin to damage the internal organs. This internal damage may show up many years later in the late or tertiary stage of syphilis. Late stage signs and symptoms include not being able to coordinate muscle movements, paralysis, numbness, gradual blindness and dementia. This damage may be serious enough to cause death.

A single dose of penicillin, an antibiotic, will cure a person who has had syphilis for less than a year. Larger doses are needed to cure someone who has had it for longer than a year. Penicillin treatment will kill the syphilis bacterium and prevent further damage, but it will not repair any damage already done. Persons who receive syphilis treatment must abstain from sexual contact with new partners until the syphilis sores are completely healed.

In 2000, United States primary and secondary (P&S) syphilis cases declined to 5,979 from 6,617 in 1999, a decline of 9.6%. The number of P&S syphilis cases reported in 2000 is the lowest yearly number of cases ever reported. The reported rate of P&S syphilis in the United States in

2000 (2.2 cases per 100,000 persons) was slightly below the rate reported in 1999 (2.4 cases per 100,000), although it is greater than the *HP 2010* objective of 0.2 of a case per 100,000 persons.

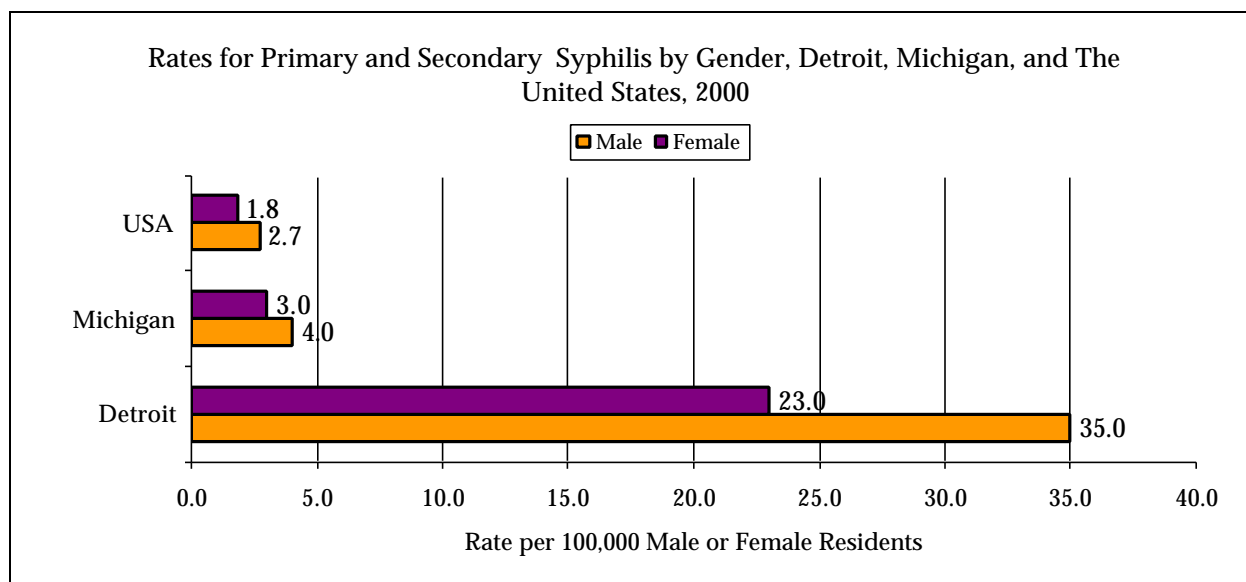


Figure 15

A national campaign is underway, initiated by the CDC, to eliminate syphilis. Consistent with the national plan to eliminate syphilis is the *HP2010* objective of 0.2 cases per 100,000 populations. Much of the county is doing well as demonstrated in Figure 12; representation of the state and national rates are barely visible in the figure, as they were 1.0 and 2.2 per 100,000 residents respectively (See Appendix III for more information regarding syphilis elimination).

Due to continuous increases in the rate of syphilis, the City of Detroit was identified by the CDC as one of nine High Morbidity Areas (HMA) and a primary participant in the CDC's Syphilis Elimination Plan. Detroit accounts for 83.0% of primary and secondary syphilis cases in Michigan.³⁴ Of Michigan's 990 cases of syphilis (all stages) in 2000, 761 were Detroit cases. For primary and secondary syphilis, which are considered to be better indicators of new cases 274 of Michigan's 330 cases were reported by Detroit.

As shown in Figure 12, Detroit had 28 cases of primary and secondary syphilis per 100,000 residents. Figure 15 demonstrates the excess burden of syphilis for men and women in Detroit as compared to the state and the rest of the country. By gender, there is also a difference, with Detroit males (35/100,000) faring worse than females (23/100,000) in reported primary and secondary syphilis rates. Higher rates in men aged 25-29 and 30-44 may account for this difference.